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ASSISTANCE TO MEMBER STATES AND AFRICAN INSTITUTIONS

INTRODUCTION

This paper attempts to provide a basis for discussions on the technical assistance delivery aspects of the Pan African Documentation and Information System (PADIS) Programme for the purpose of improving the information handling capabilities of African countries thereby contributing to the attainment of their stated development goals and objectives.

The paper is structured in the following manner:

Section I contains a description of the present state of information and documentation at the national, subregional and regional levels.

Section II recapitulates the main roles and functions commonly attributed to co-ordinating organs of national information and documentation activities.

Section III discusses the principles underlying PADIS subregional information and documentation centres and the roles they are expected to play.

Section IV provides an overview of the general institutional, manpower, material and financing requirements of national information and documentation co-ordinating organs.

Section V discusses the elements of PADIS assistance to Member States in the immediate future.

Section VI is an account of the progress made to date by PADIS in its efforts to assist in the creation of national centres.

I. STATUS OF INFORMATION AND DOCUMENTATION IN AFRICA

1. Unavailability of information, inadequacy of data, lack of information on sources of information, lack of bibliographic control, inadequate exchange of experiences between countries at the same level of development, etc. are complaints frequently voiced by African government officials, academicians, researchers in the applied sciences, business men and the like. These complaints relate to some degree or another, to the unsatisfactory organization of information and documentation. Despite the persistence of the problem, seldom have systematic studies been conducted to identify the nature and extent of the need and to match it with the generally weak information infrastructure with a view to determine remedial action. Therefore, with few exceptions, the status of information and documentation activities at the national level remains shrouded. Needless to say, this has inhibited inter-country comparisons and, for this reason, the discussions in this section suffer from a basic lack of detail.

A. The National level

2. The situation at the national level is extremely diverse and it is difficult to fathom it within reasonable accuracy. Generally, Member States in the North African subregion have relatively better organized information infrastructure although the situation within these countries themselves differs significantly. In the Central, East, South and West African subregions some countries have better capacities in one or more areas (institutional, manpower, etc.) while the combination of factors, generally, results in a service below the desired level. The problem can be subcategorized, for ease of analysis, into (a) institutional constraints such as policies, legislation, co-ordination, etc; (b) human resources constraints such as manpower, education, medium-level training and the status of information personnel; (c) infrastructural bottlenecks including methods and technologies; (d) the inability of existing services in meeting user needs; and (e) socio-cultural aspects such as illiteracy, a low level of book production; reading habits; etc.

3. In so far as institutional provisions are concerned, the following generalizations can be made: very few countries have a central authority responsible for information and documentation policies; even when such agencies exist there is vagueness as regards their functions and roles; legislations are inexistent or ineffective; co-ordination between government agencies responsible for information activities such as national libraries, national archives, library schools, etc. are poor; information and documentation activities are rarely included in national development plans; and, in cases where they have been incorporated, they suffer from a low rate of implementation.

4. In so far as human resources constraints are concerned, the situation can be generalized as follows: (a) very few countries have schools of information and library science (as of 1979, only 9 out of 50 countries); (b) most libraries and information services are run by personnel who had no formal training in this field; (c) the few who had formal education underwent training at schools which had a rather traditional approach to information science and librarianship; (d) there is a severe shortage of middle-level technicians in documentation, reprography, etc.; (e) follow-up and in-service training are insufficient; and (f) the information, documentation and librarianship profession has not been given the status and recognition it deserves.

5. In so far as infrastructure is concerned the situation looks as follows: (a) the scarcity of space, material and financial resources has precluded the growth of services; (b) methods and mechanisms for the acquisition, processing and dissemination of information, particularly as regards standards and technologies are poorly developed; and (c) inter-agency co-operation is non-existent or has been frustrated by ineffectiveness.

6. The services provided by existing sources of information are far from effective due to the insufficiency of their marketing effort. The unavailability of union catalogues, national bibliographic control and directories to source of information preclude the potential use of existing information. Also, the acquisition pattern of information centres is often incoherent with the needs of its immediate users due to the lack of sufficient integration between the activities of the parent agency and its information support unit. At the macro-level national information plans are not coherent with national development plans.

7. The socio-cultural milieu in which the African information and documentation activity operate is characterized by certain 'limiting' variables which could directly or indirectly contribute to the low status it is accorded. These include: the low literacy rate; the low level of book and reading material production; poorly developed reading habits of the general public as well as the elite; and, the relatively lower educational level.

B. The Subregional and Regional levels

8. The information and documentation handling capacities at the subregionaland regional level exist within the framework of internatinal, inter-governmental or non-governmental organizations whose fields of competence embrace a particular subregion or region. Such organizations often have a specialized sectoral or mission-oriented area of activity, although some have broad multi dimensional responsibilities (e.g. UNECA, Economic Community of West African States, etc.). As a result, most

documentation systems housed within such organizations have an information scope that is restricted to the field of competence of the parent agency.

9. One of the apparent weaknesses at the subregional and regional levels is the lack of co-ordination and exchange of information between institutions that deal with the same or related subject areas. However, the situation seems to be improving with the emergence of co-ordinating mechanisms (e.g. POPIN-AFRICA in population studies, the Food and Nutrition Information Network, etc.).

10. The methods and mechanisms used for information and documentation work used by regional and subregional organization are relatively better suited than the ones in use at the national level. However, there is much room for improvement in coverage, marketing of outputs, diversifying services, and the use of appropriate technologies.

11. Some regional and subregional organizations undertake a variety of information and documentation activities including publishing of indexes and directories, the dissemination of information to an established clientele and even relatively advanced services like SDI and question-and-answer services.

II. ROLES AND FUNCTIONS OF NATIONAL INFORMATION AND DOCUMENTATION CENTRES

12. National information and documentation centres (NIDC) are, by definition, those organs that plan and co-ordinate the activities of libraries, documentation centres, archives and the like at the central level. In developing countries these function is universally played by the State as part of its functions in promoting social and economic development.

13. The justifications for the establishment of a central organ responsible for information and documentation affairs is beyond dispute and shall not be repeated here. However, three important recommendations made by UNISIST - the Intergovernmental Conference on a Scientific and Technological Information for Development - are cited below:

> Recommendation 15. A governmental or government-chartered agency should exist at the national level to guide, stimulate and conduct the development of information resources and services;
>
> Recommendation 16. The national agencies should give increased attention to the requirements of modern information transfer networks using advanced processing and communication facilities;

> Recommendation 21. The action of UNISIST with regard to the scientific and technical information needs of developing countries should be (i) to provide a forum where assistance to library and information services in developing areas may be discussed; (ii) to propose guidelines for the establishment and management of effective information networks in developing countries; (iii) to take part in the design of a few pilot projects....

14. The principles underlying the PADIS technical assistance scheme are in conformity with these UNISIST recommendations, except that it takes more active participation in the establishment of national centres than was stipulated under UNISIST.

15. The roles and functions of NIDCs are dependent upon several factors including the stage of social, economic and technological development attained by the society in question; the stage of development of the information and documentation services; and, the national development priorities as stated by national plans and strategies. An analysis of the national information and documentation capacity in relation to national requirements emerging from stated priorities should make possible the drafting of an information plan.

16. Such an information plan should take into account the various elements of the national system (public libraries, specialized libraries and documentation centres, etc.) and the degree and type of relationship that shall be maintained between these elements and the central organ to be responsible for all information and documentation affairs. Whether these central organ should be the NIDC itself or a body comprised of representatives of the various elements of the national system (Board, State Committee, etc.) is determined by the relative strength and weaknesses of the latter in meeting information needs of the economy. Where the existing infrastructure is relatively weak, there is reason enough to advocate centralization in the first instance since decentralization presupposes a unified methodology and a clear division of responsibilities that is concomitant to the capabilities of each participating element.

17. In either case, the NIDC shall have the priority task of developing policies and legislation. It shall be the duty of the NIDC to synthesize the national development plan to produce an information plan that will be executed in collaboration with documentation centres and specialized libraries that operate at the various levels of the political and economic structure. In reverse, the NIDC should also facilitate the incorporation of the information plan into the national development plan.

18. Co-ordinating the national information activity by maintaining compatibility, regulating the exchange of information, facilitating resources sharing, delineating division of responsibilities and relinquishing some central roles to

appropriate units in a progressive and timely manner will be an important function of the NIDC. Given the generally limited human, financial and material resources available for documentation activities, the installation of some central facilities that can be effectively accessed by all parties of the national system will be an important contribution to resources sharing and the optimization of resources use. Some amenities that respond favorably to such arrangements are high level manpower, data processing facilities, reprographic equipment, marketing of information services and document delivery mechanisms.

19. However, the benefits of centralization can be fully realized only if the central organ (the NIDC) is ready to relinquish some of its functions to the subsidiary elements as and when they develop the appropriate capabilities. In fact, all the scarce resources that can be shared by several elements need not be located at the NIDC.

20. The NIDC shall undertake active information and documentation work and it should play a pioneering role for the introduction of new methods, mechanisms and technologies. In reality, the information and documentation field is lagging behind other sectors of the economy and it, therefore, needs an injection of new skills and technologies. The NIDC should serve as a test ground with the realization that successful applications will be replicated at other levels.

21. The educating functions of the NIDC is inherently limited to the provision of in-service training to medium level practitioners with a view to upgrade their skills and expertise. However, it could play a valuable role in the development of curricula for the information and documentation field. It could also play an important role as a site for practical training for those undergoing formal education at the medium or higher levels. The co-ordination of NIDC activities and high level formal education have been found fruitful as is the case in Morocco where the Centre National de Documentation and the Ecole des sciences de de l'information have developed in parallel, each benefitting from the existence of the other. The NIDC shall also undertake the the traning of users in order to advance the use of the system's outputs.

22. The NIDC should endeavour to improve the status of information and documentation personnel including their remuneration at a level consonant with their education and function. Admittedly the usefulness of information scientists and librarians to the society at large is a precondition to the improvement of their social status. The effectiveness and usefulness of the national information system and the rise in prestige that will be associated with the new policies and technologies shall assist in bringing about positive results.

23. One role of the NIDC that cannot be delegated to others for a reasonably long period of time is international and

regional co-operation. However, with the growth and development of specialized documentation centres and libraries into higher stages, it should be possible for them to communicate and exchange information with institutions and documentation centres active in their respective fields of competence at the sub-regional, regional or international levels.

24. Lastly, the NIDC shall, directly or indirectly, contribute to the elimination of the socio-cultural barriers that inhibit the production, distribution and consumption of reading materials.

25. The information and/or subject scope of the NIDC should, in principle, be as broad as possible. The desirability of such a broad scope is partly due to the role the NIDC plays in co-ordinating the activities of several sectoral, discipline or mission oriented systems which will in any way induce multi-dimensionality. In parallel, its broadness in scope shall not be devoid of national realities. Rather, the information to be handled both by the NIDC and its elements should be in strict conformity with national priorities. For instance, a predominantly mining economy should be supported by a strong mining information and documentation service and, therefore, the need for the NIDC to support activities leading to it. Aside of subject and discipline concerns, the definition of the scope of the NIDC shall take into account information needs oriented to the management of and knowledge about resources. The NIDC should facilitate the emergence of methods and mechanisms for taking inventory of available skills, capacities and, whenever possible, natural resources.

26. Numerical information and, particularly statistical data are normally handled by national statistical offices. It is common that most statistical data are reproduced in the form of statistical abstracts of one type or another. The NIDC shall maintain a collection of such publications. But it is not advisable that it holds a stock of 'unaggregated' statistical data, at least not at its embryonic stage.

III. ROLES AND FUNCTIONS OF PADIS SUBREGIONAL INFORMATION AND DOCUMENTATION CENTRES

27. The experience of the industrialized countries and, to a limited extent, that of the developing regions indicates supra-national information and documentation activities are usually devoted to a specialized sphere of learning. In general, their activities run parallel to research and development work and the parent agencies are usually centres of excellence in a particular field. With the advent of modern information processing and dissemination technologies, it has been possible to create links between specialized documentation centres existing at the national and supra-national levels in an unprecedented manner. The result has been the emergence of networks and

large depsitories of data bases which, today, dominate the information services market. The fact that most information and documentation systems in North America and Europe had developed independently induced the need to apply expensive and complex interfaces and protocols to enable access to depositories of information distributed over a large geographical area.

28. In the developing regions, where developments in the information and documentation field are still at an embryonic stage, supra-national systems and networks have as yet to emerge. However, there is a positive tendency in this direction mainly, due to the desirability of inter-country exchange of information. It can be safely assumed that networking will be an important feature of developments in the information field in these regions and, hence, the need to take into account networking parameters in the design of new and the modernization of existing national information and documentation centres has become pronounced.

29. In Africa, where the Pan African Documentation and Information System is playing an active role, due recognition is being given to networking aspects. In this endeavour, a three-tier network has been necessitated: the national, subregional and regional levels. The justifications for establishing co-ordinating mechanisms (centres) at the national and regional levels is fairly straight forward. The creation of the intermediate (subregional) level is dictated by two important factors and perhaps may need some explanation.

30. A combination of factors including, the size of the continent, the large number of countries (nodes), and the state of communication services make it managerially impossible at this stage to contemplate a highly developed network (e.g. one NIDC accessing any other NIDC). Similarly, networking based upon access through one intermediary (the PADIS Central Co-ordination Office, for instance) does not overcome the barriers and delays imposed by poor communication services. On the contrary, networking with subregional centres and one regional centre as intermediate features and coupled with a suitable distribution of reference data bases and primary document depositories seems a better option. Also, such an arrangement as and when traffic rates justify it, is favorable to enhanced applications such as postal courier services, partial use of telecommunication links between selected centres, etc. Nevertheless, it is difficult to analyze to its true extent the trade-off between cost and effectiveness as measured by a time factor for given levles of managerial and technical resources.

31. The second factor that dictates the existence of a subregional element does not have to do, so much so, with the network aspect. Rather, it is called for by the need to intensify technical assistance delivery to emerging NIDC. It is common knowledge that intensity of development action appreciates

significantly through decentralization than under a centralized framework. It is believed subregional centres will serve as effective springboards for technical assistance to NIDCs and specialized documentation centres within their respective subregions. They will serve as sites for training programmes and will permit a higher degree of resources sharing particularly, data processing equipment, reprographic facilities and specialized manpower.

32. In addition to the subregional centres described above, there exist quite a few inter-governmental and non-governmental organizations in Africa who operate at the regional and subregional levels and who have established or are in the process of establishing information and documentation systems and networks that are of relevance to the work they conduct. As generators and users of information and as centres of excellence in their particular competences, they have been identified by PADIS as important elements of its system and network. Hence, the concern for institutional participating centres (IPCs). At present, no elaborate plan exists as to their involvement aside from the fact that they will benefit from the advisory and training services to be sponsored by PADIS. But one cannot rule out the contributions they can offer as subject specialists in the development of methodologies and in the co-ordination of information services in particular disciplines and subject areas.

33. At the regional level, the PADIS Central Co-ordination Office provides the impetus for the proliferation of mechanisms that identify, gather, process and disseminate information, itself being active in the process. Its functions and roles have been discussed in detail elsewhere and shall not be repeated here.

IV. HUMAN, INSTITUTIONAL, MATERIAL AND FINANCIAL REQUIREMENTS OF NIDCs

34. The requirements of NIDC's are dependent on a variety of factors, including, the stage of development of the country in question and the priority accorded to information and documentation activities which, in turn, determine the degree and variety of services demanded and the resources that can be allocated for the purpose.There is unanimity that every nation deserves to possess an information and documentation mechanism that conforms to its development goals and objectives. model that fits into the web of factors and their interaction can be defined only after an in-depth study.

35. Nevertheless, some ideas could be forwarded as regards institutional, human, financial and material needs of emerging NIDC's.

36. The measures needed by way of institutional provisions such as legislations and policies requires the awareness of Governments and their determination to take action. Often the problem is inability to enforce and implement legislations and policies while the setting up of an organization has equally been difficult. Unless these provisions are available and unless the latter is furnished with reasonable resources it will be rather impossible to improve the state of national information and documentation activities.

37. The available human resources mix particularly duing the take-off (design, policy setting, etc. of an NIDC) period is crucial since there will be a need to critically analyze the old method and approach with a view to change it wherever appropriate. The selection of new staff for the NIDC should be conducted with caution in order to maintain a balance between information scientists, librarians, subject specialists, reprography specialists, and persons with computer know-how. In view of the tremendous need for training at the subnational level has yet to be met, it is always advisable to have a variety of resource persons on various aspects of documentation and information science in order to draw upon their specialist knowledge and experience. This latter fact should also be taken into account while preparing staff development plans for the NIDCs own staff.

38. The material needs of NIDCs will vary from one country to another and over time within one NIDC itself. It is recommended to phase-in technologies within a properly spaced out plan. The introduction of computer technologies is not an immediate necessity. But the decreasing cost, growing versatility, the variety of options and improving maintenance conditions is making them technically and economically feasible even at an early stage. Even more important is, however, the availability of hard and micro reprographic equipment. Space, office equipment (particularly shelves), supplies and utilities such as telephones and telexes have been common obstacles to the growth of library and documentation services and shall be remedied.

39. The most pressing problem faced by NIDCs, and a factor that depicts the low priority they receive vis a vis other national priorities, is the unavailability of financial resources on a continuous basis at sufficient levels. Usually, Member States are better disposed towards making budgetary local currency allocations once there is adequate realization of the usefulness of NIDCs. However, their foreign currency needs are weigled in comparison to an altogether different set of priorities in which NIDC requests have very little chance of succeeding. This is even more true when the requests are for the purchase of computer and reprographic equipment which are considered by the majority of Member States as conspicous investments. The purchase of foreign publications suffer from the same attitude. Traditionally, foreign multilateral or

bilateral aid has been a useful source of funding in meeting similar needs of statistical offices, teaching institutes, etc.

V. ELEMENTS OF THE PADIS ASSISTANCE SCHEME IN THE IMMEDIATE FUTURE

40. The fact that PADIS assistance to Member States need to be comprehensive and intensive is dictated by the poor state of information documentation activities as explained in the previous sections this paper. Evidently, the whole spectrum of assistance needs cannot be met by PADIS alone, partly because of the limited material and financial resources put at the disposal of PADIS and partly because it does not as yet possess all the requisite technical competence. Whenever, its capabilities fall short of meeting the needs of Member States, PADIS will strive to engage the collaboration of other agencies who may be better equipped to provide a solution.

41. Advisory services for the drafting of national policies and legislation and for undertaking research and studies to identify peculiar problems of the national situation will be a priority area of assistance to Member States in the immediate future. Member States, upon request, will be assisted in the planning and organization of NIDCs; in the design and implementation of information collection, processing, marketing and dissemination mechanisms as well as for the setting up of national networks. Member States will also benefit from technical advice on the selection of suitable computer hardware and software, reprographic equipment, etc.

42. PADIS assistance will also focus on the development of medium-level staff in documentation, computerized data base management and reprographic techniques through the provision of short-term intensive training. The development of senior level staff responsible for the management of documentation systems and computer centres will also be organized. Fellowships and research grants will be made available to Africans in such fields as information science, systems development, software maintenance and development, etc.

43. Financial assistance to Member States for the purchase of computer and reprographic equipment, supplies and maintenance costs will be made available as and when resources permit and when the stage of development of the particular NIDC justifies it. Wherever possible, NIDCs should strive to make use of the EDP facilities that may be available at national agencies such as statistical offices, planning ministries, etc. either on free-of-charge or cost sharing basis. More importantly, the establishment of PADIS subregional centres will provide EDP services to NIDCs free-of-charge in the production of certain outputs such as bibliographies, SDI runs, etc. which will not require on-line access.

44. PADIS will provide expertise to NIDCs during the initial take-off period depending on the type of qualifications that are missing at the particular NIDC. The aim of such assistance will be to transfer skills to nationals in the minimum possible period.

VI. PROGRESS MADE IN ASSISTING MEMBER STATES

45. As mentioned elsewhere, the first task PADIS has undertaken in this area was to sensitize Member States on the possible benefits of establishing NIDCs as instruments for the upgrading and rationalization of information and documentation services. This effort took the form of model project documents that described the outputs of NIDCs. Subsequently, several African countries were visited by staff members of the PADIS/CCO in an effort to induce Governments to take concrete action. Although better results could have been expected, the outcomes are not totally disappointing either.

46. The Government of Benin, following the advise of and the assistance it received from the PADIS/CCO had succeeded in establishing its Centre National Automatisee pour la Documentation et Information (CENADI). Three staff members have undergone training at the PADIS/CCO for four weeks each, in the management of documentation systems, computer centres and the operation of reprographic equipment respectively.

47. The Institute of Development Research of the Government of Botswana has been assisted to create a documentation centre that will gradually be expanded into an NIDC. Three staff members have undergone training at the PADIS/CCO and a workshop has been organized for documentation officers of various government agencies in Gaborone, Botswana to enable them to participate in the future national centre.

48. Similar workshops were organized in Guinea and Niger for a duration of four weeks to provide staff of various government agencies with documentation skills. In both instances a centre that will gradually be expanded into a national centre has been designated by the respective Governments.

49. Efforts were underway to establish PADIS subregional centres at the Eastern and Southern and West African MULPOCs at Lusaka and Niamey respectively. Current financial resource constraints faced by the PADIS/CCO has precluded their establishment as planned. Therefore, agreements are being concluded which will enable the respective host Governments to operate the two centres as national centres with the requisite technical assistance being provided by PADIS.

50. The above imply that concrete action at the national level is being carried out in five Member States. However, it cannot be denied that a lot more has to be done before these young centres become useful instruments for national development and future action is directed towards their strengthening.